

# Table of Contents

Blasteroids™ RAM/ROM Error Tables . . . . . Sheet 1

Blasteroids Game PCB Assembly Schematic Diagram . . . . . Sheets 1–11

Blasteroids Memory Map . . . . . Sheet 12

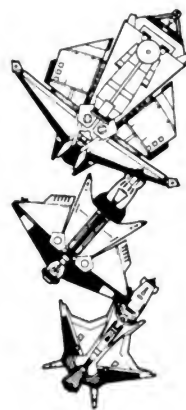
Blasteroids Main Wiring Diagram . . . . . Sheet 13

Stand-Alone Audio PCB Assembly Schematic Diagram . . . . . Sheets 14–17

Housequake™ PCB Assembly Schematic Diagram . . . . . Sheet 18

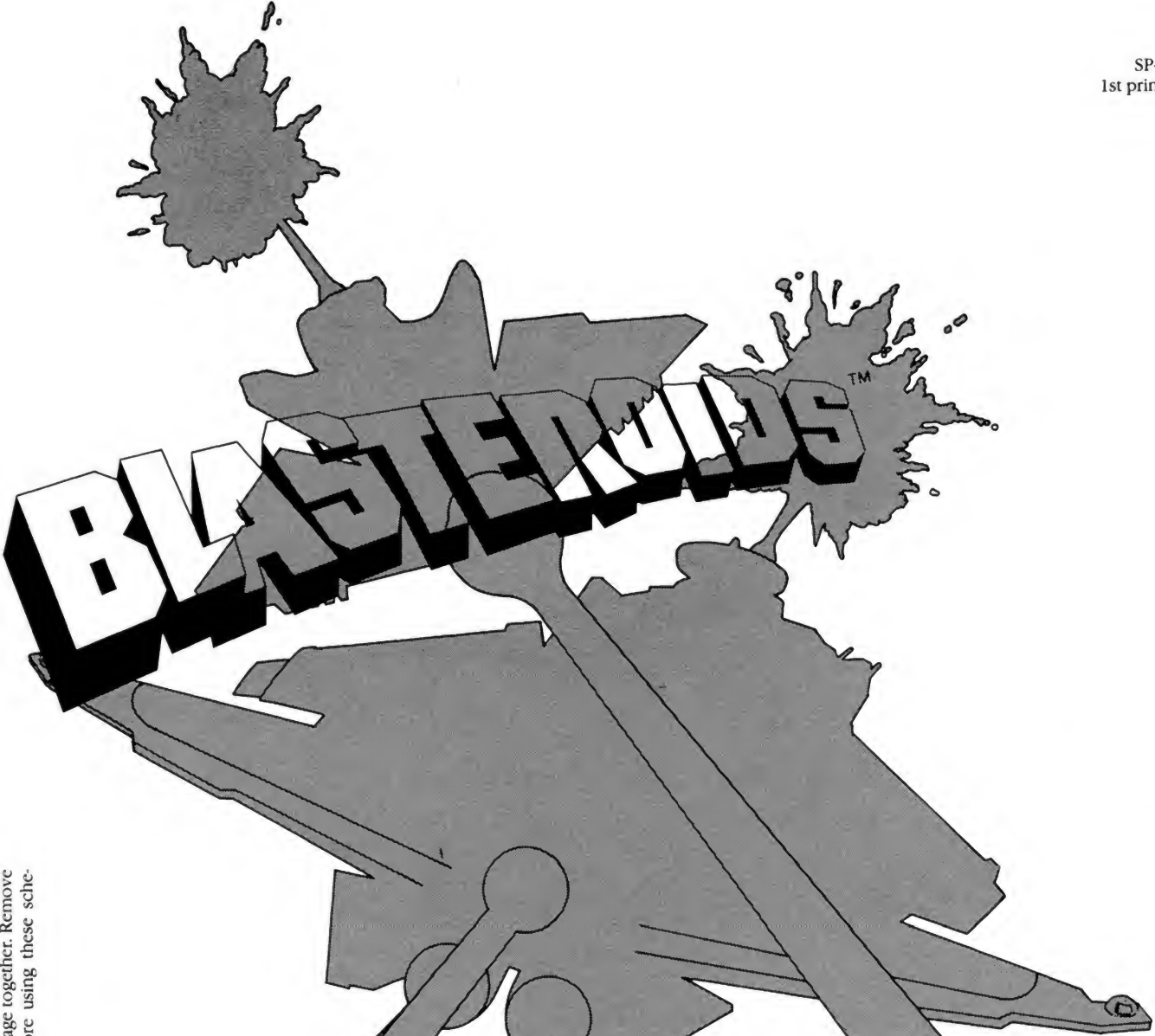
Wiring Diagrams for Switching/Linear (SL) Power Supply, Hitron 5V  
10A Switching Power Supply, and Coin Door . . . . . Sheet 19

Blasteroids Harness Installation . . . . . Sheet 20



**NOTE**

This staple temporarily holds the schematic package together. Remove the staple before using these schematics.



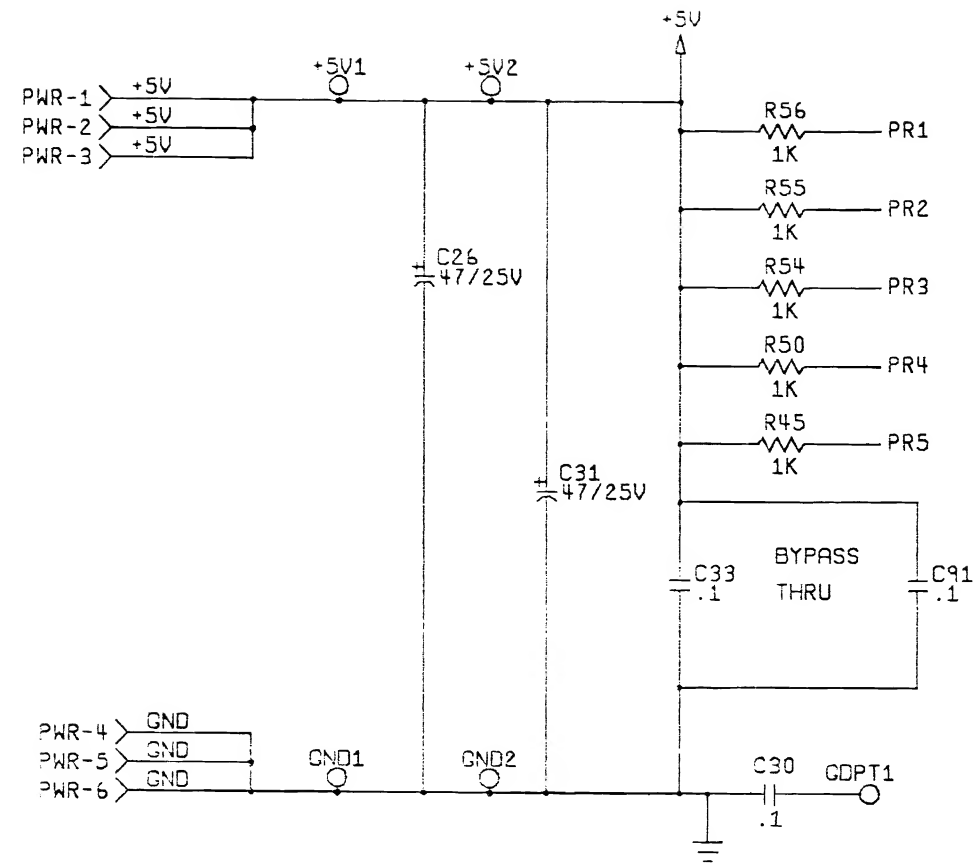
## Schematic Package

Supplement to the Operators Manual



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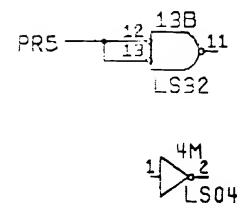
**Table 1 Faulty RAM Locations**

Video Characteristic	Location on Game PCB	RAM Type
Red background	6/7L 5L	Upper Video RAM Lower Video RAM
Black background	15/16C 15/16B	Upper Color RAM Lower Color RAM

**Table 2 Faulty Program ROM Locations**

Error Address	Location on Game PCB	
00000	U = 6C	L = 6B
20000	U = 4C	L = 4B

## SPARE GATES



## NOTES: UNLESS OTHERWISE SPECIFIED

- RESISTORS ARE 1/8W, 5%.
- A 231000 ROM MAY BE INTERCHANGED WITH A PAIR OF 27512 EPROMS ON SHEET 6,7, AND 8 :
  - 1L = 1L,1M
  - 3L = 3L,3M
  - 5M = 5M,6/7M
  - 5N = 5N,6/7N

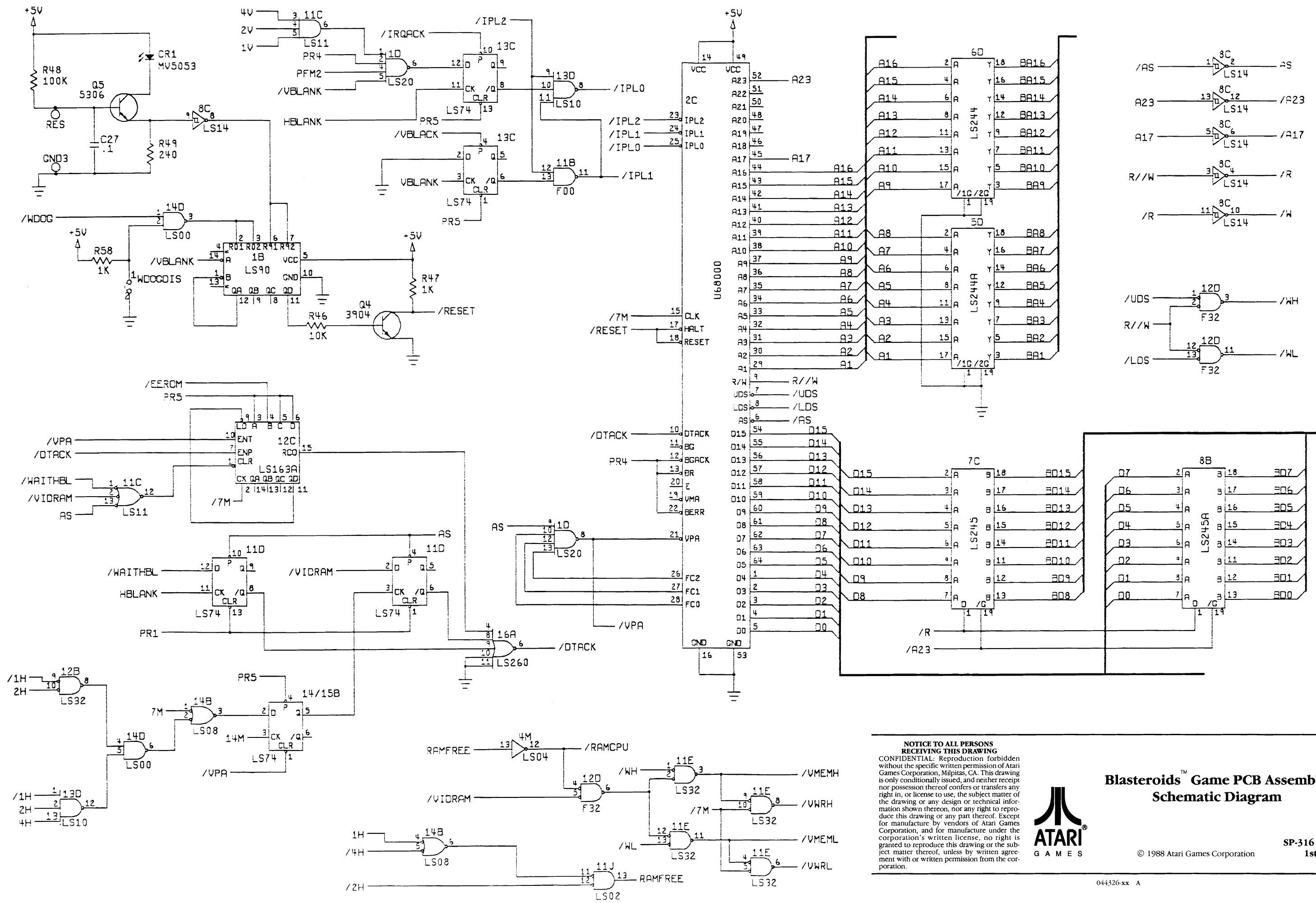
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## Blasteroids™ Game PCB Assembly Schematic Diagram, RAM/ROM Error Tables

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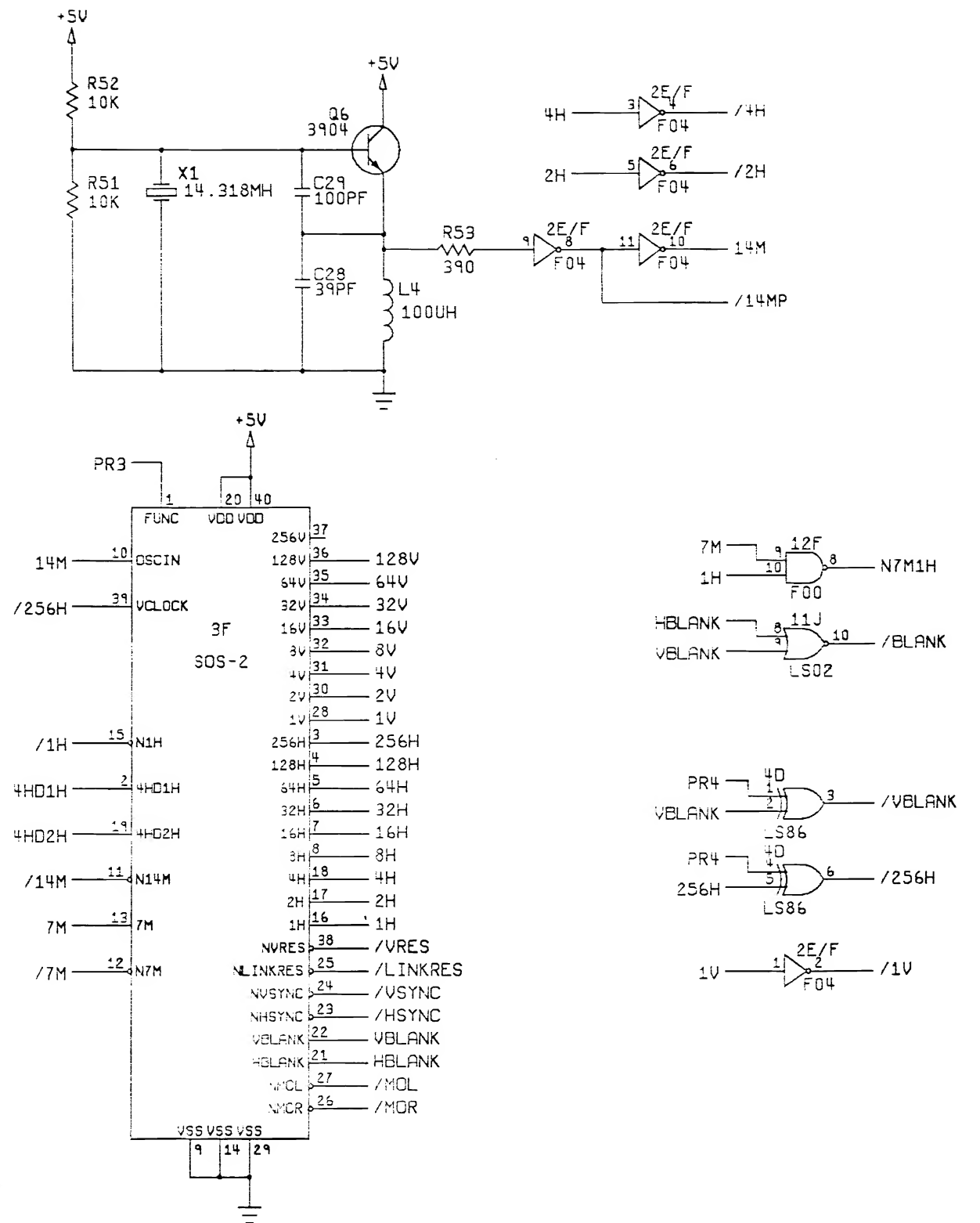
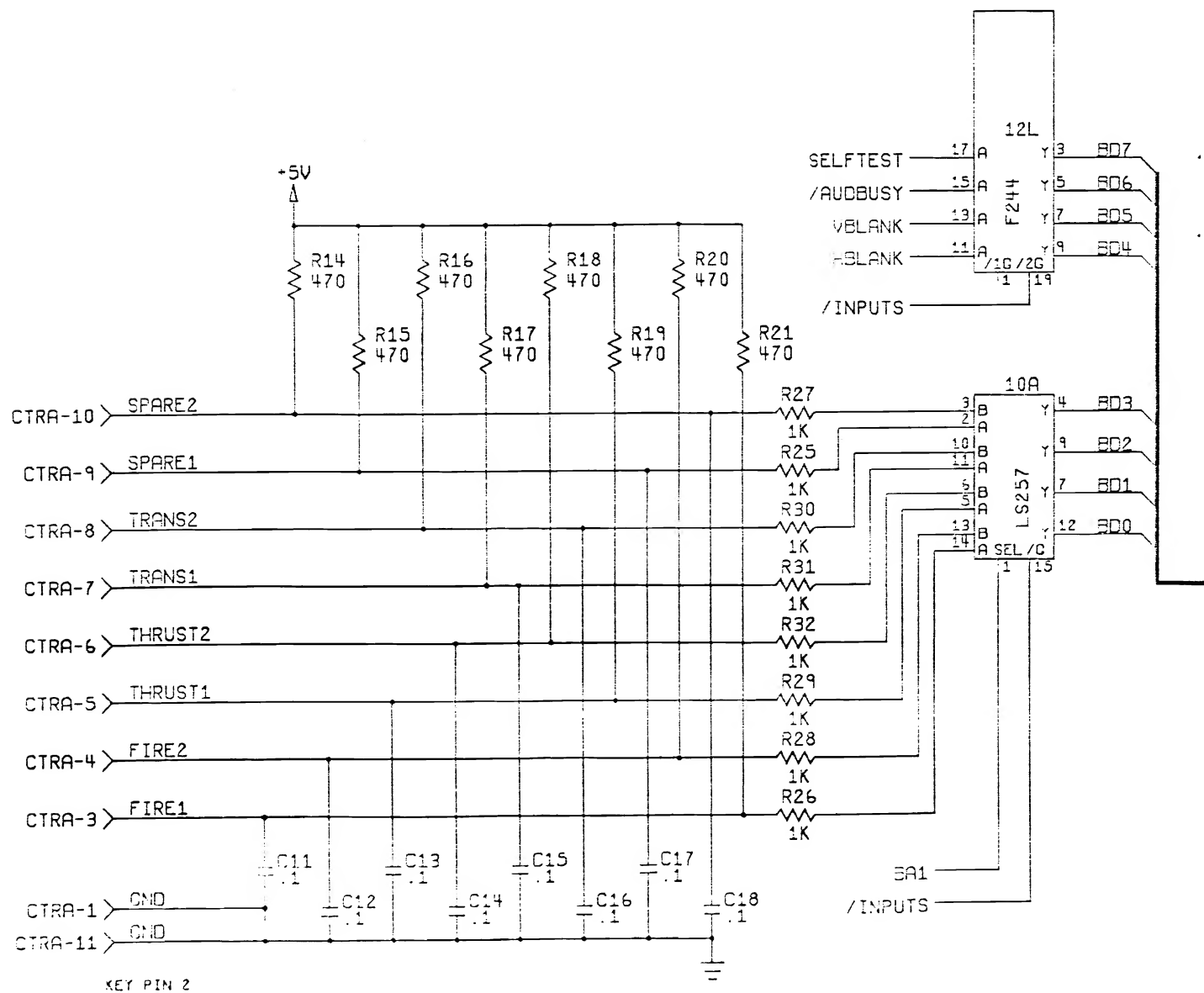
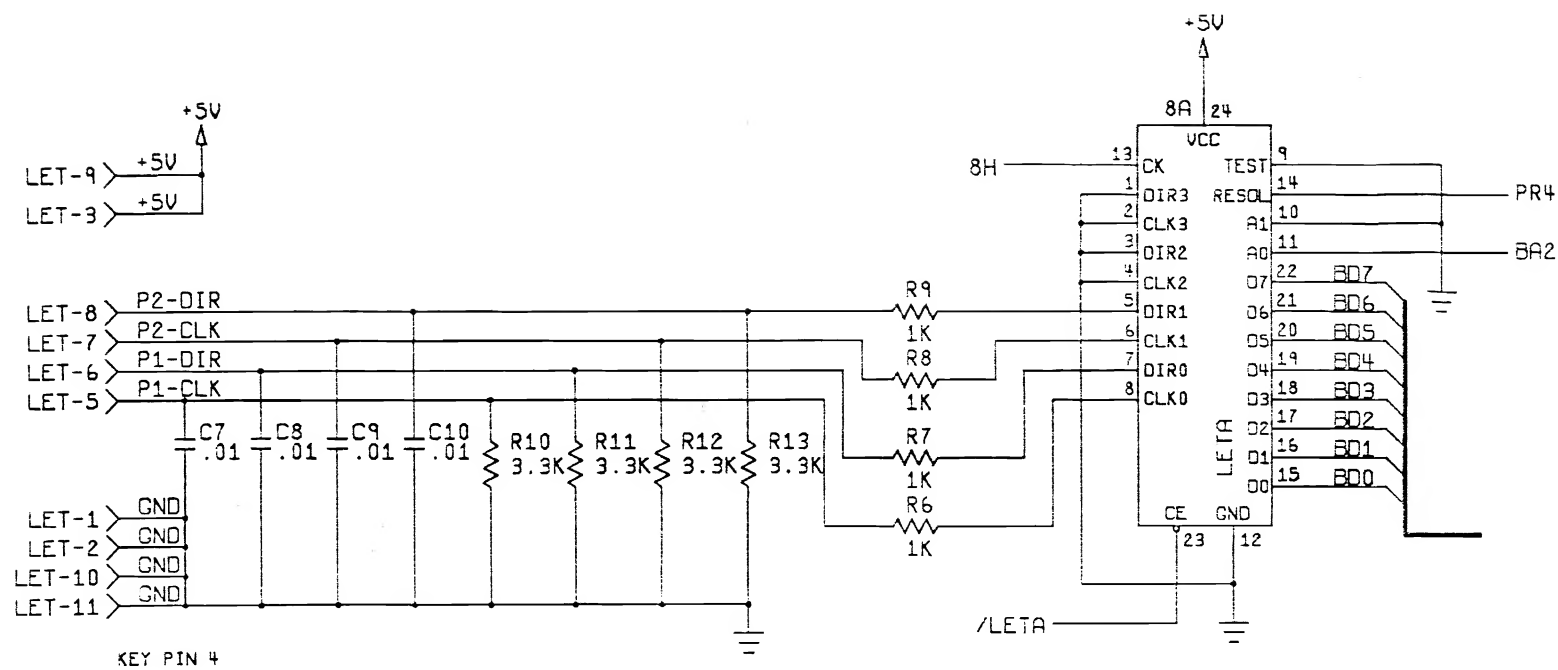


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# **Blasteroids™ Game PCB Assembly Schematic Diagram**





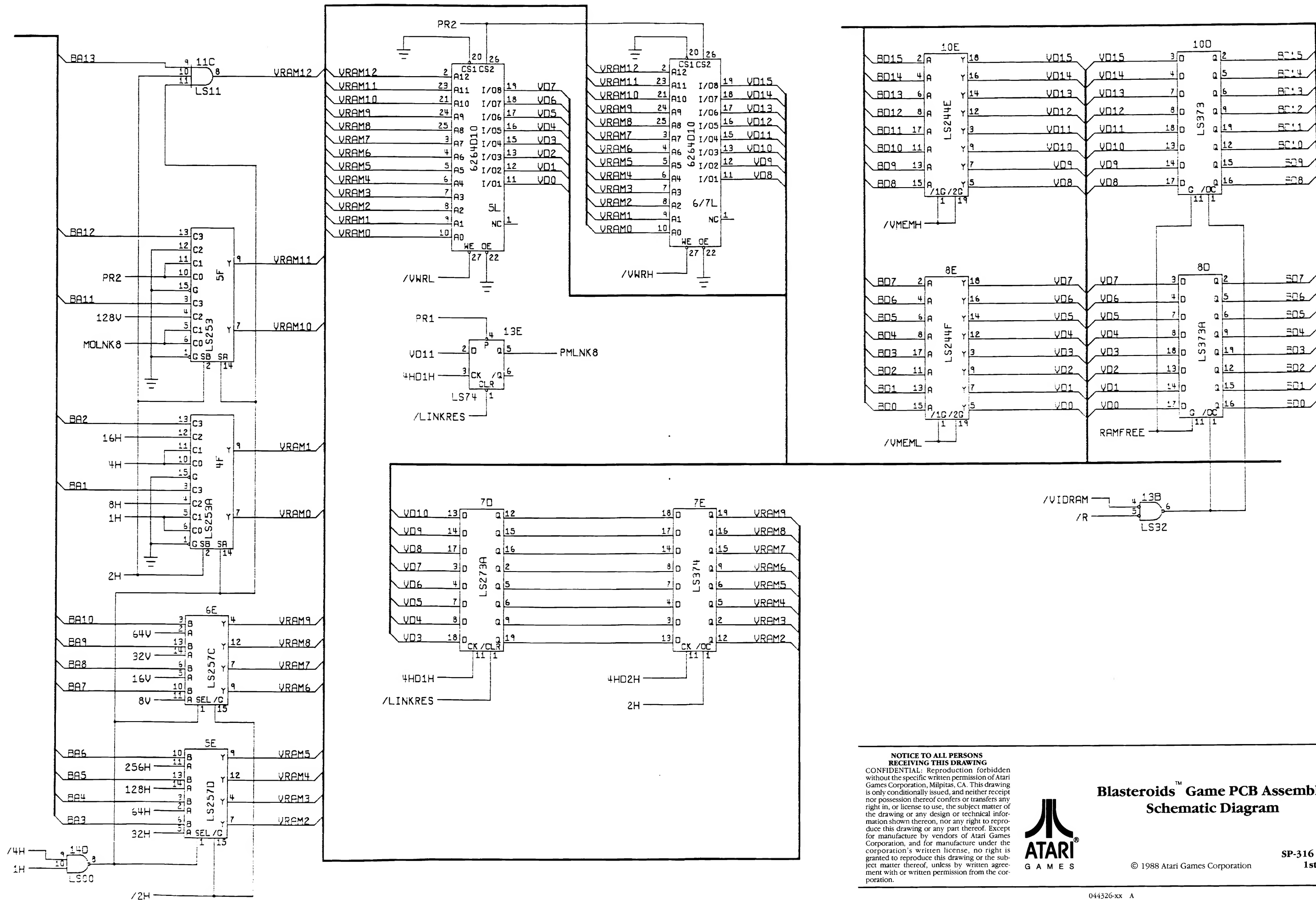
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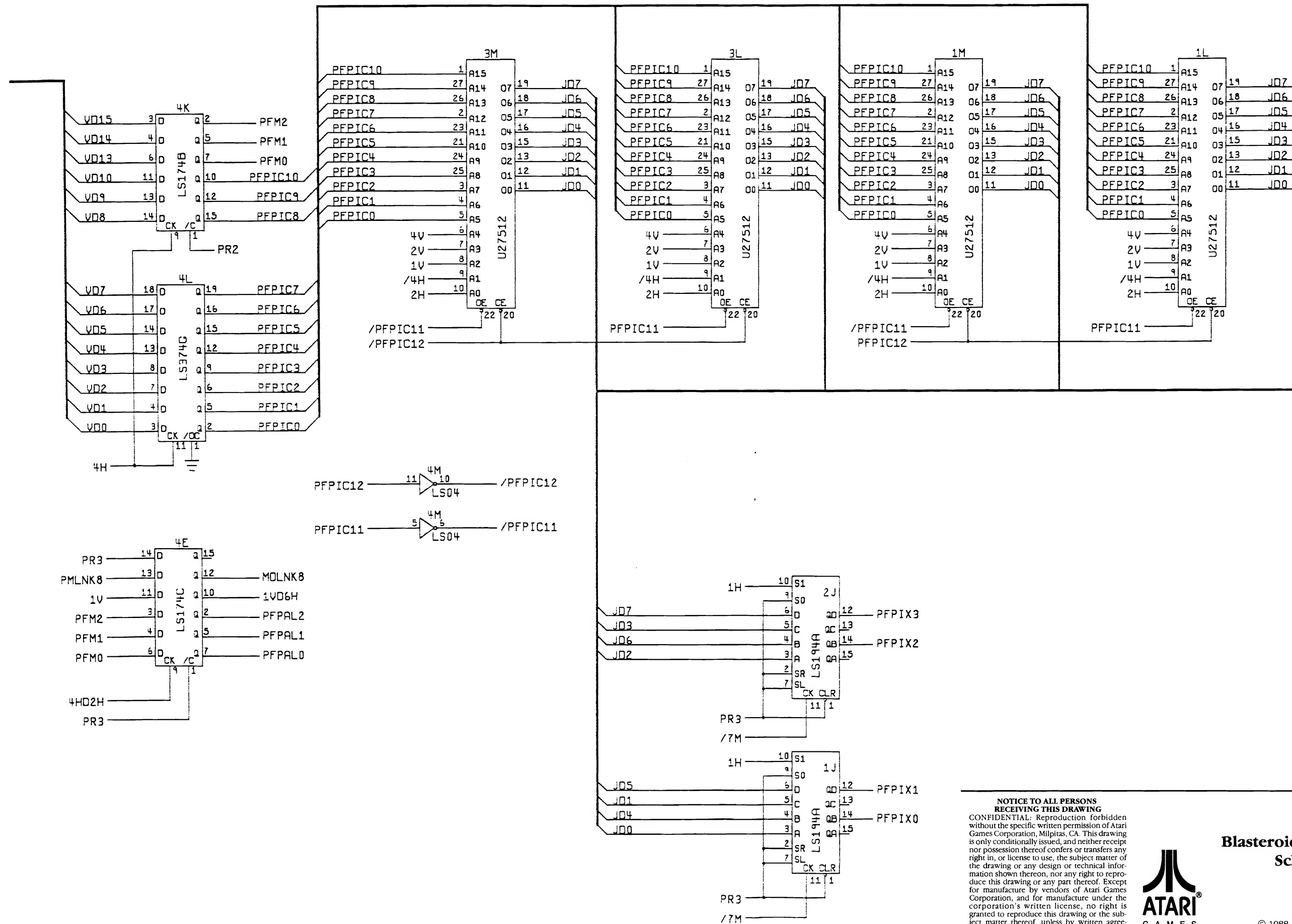


## Blasterooids™ Game PCB Assembly Schematic Diagram

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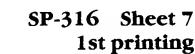
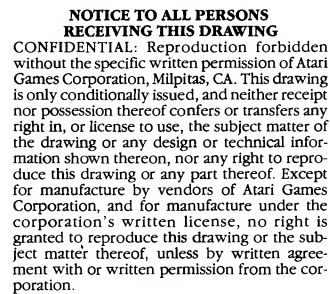


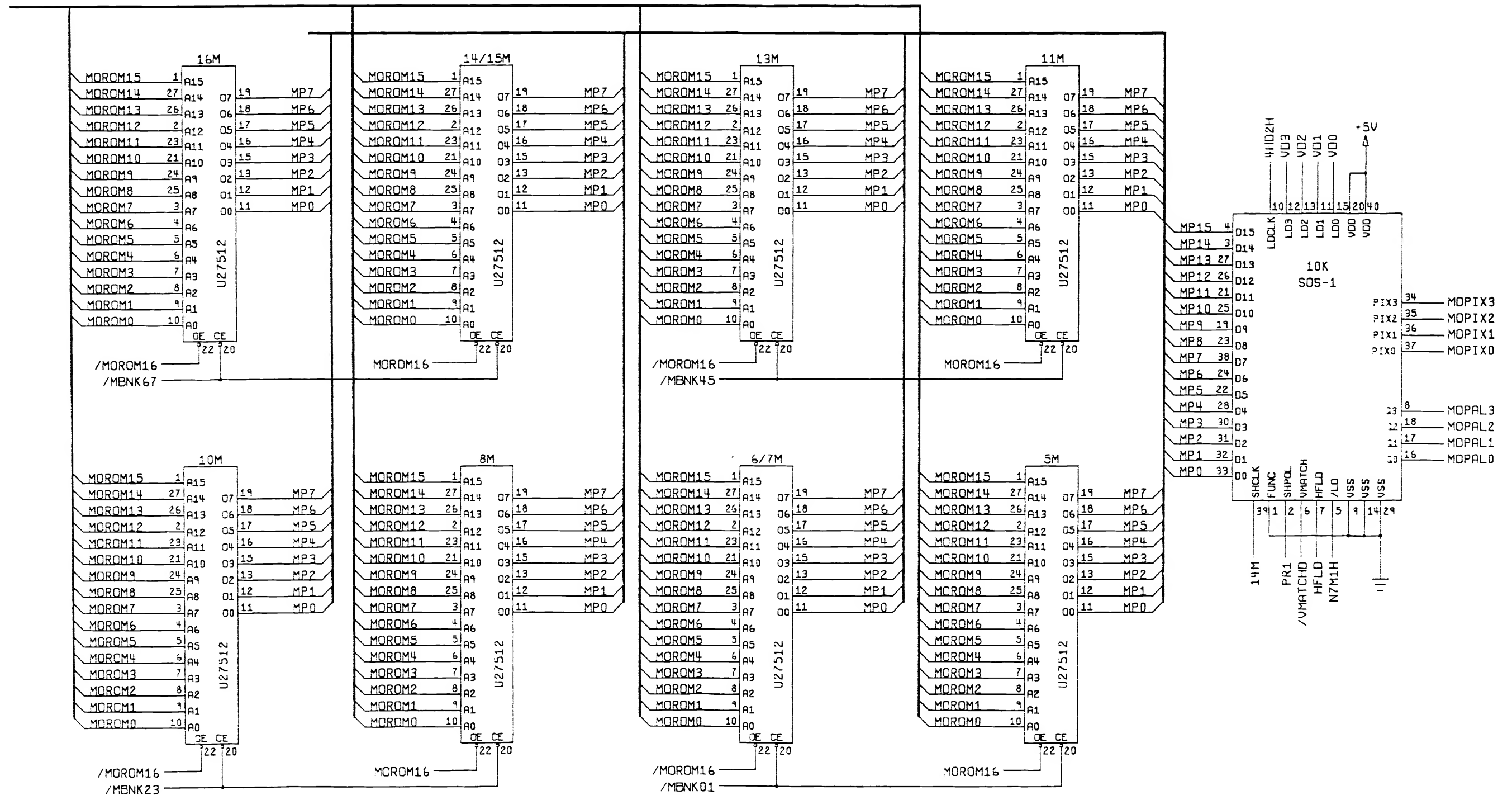
# **Blasteroids™ Game PCB Assembly Schematic Diagram**

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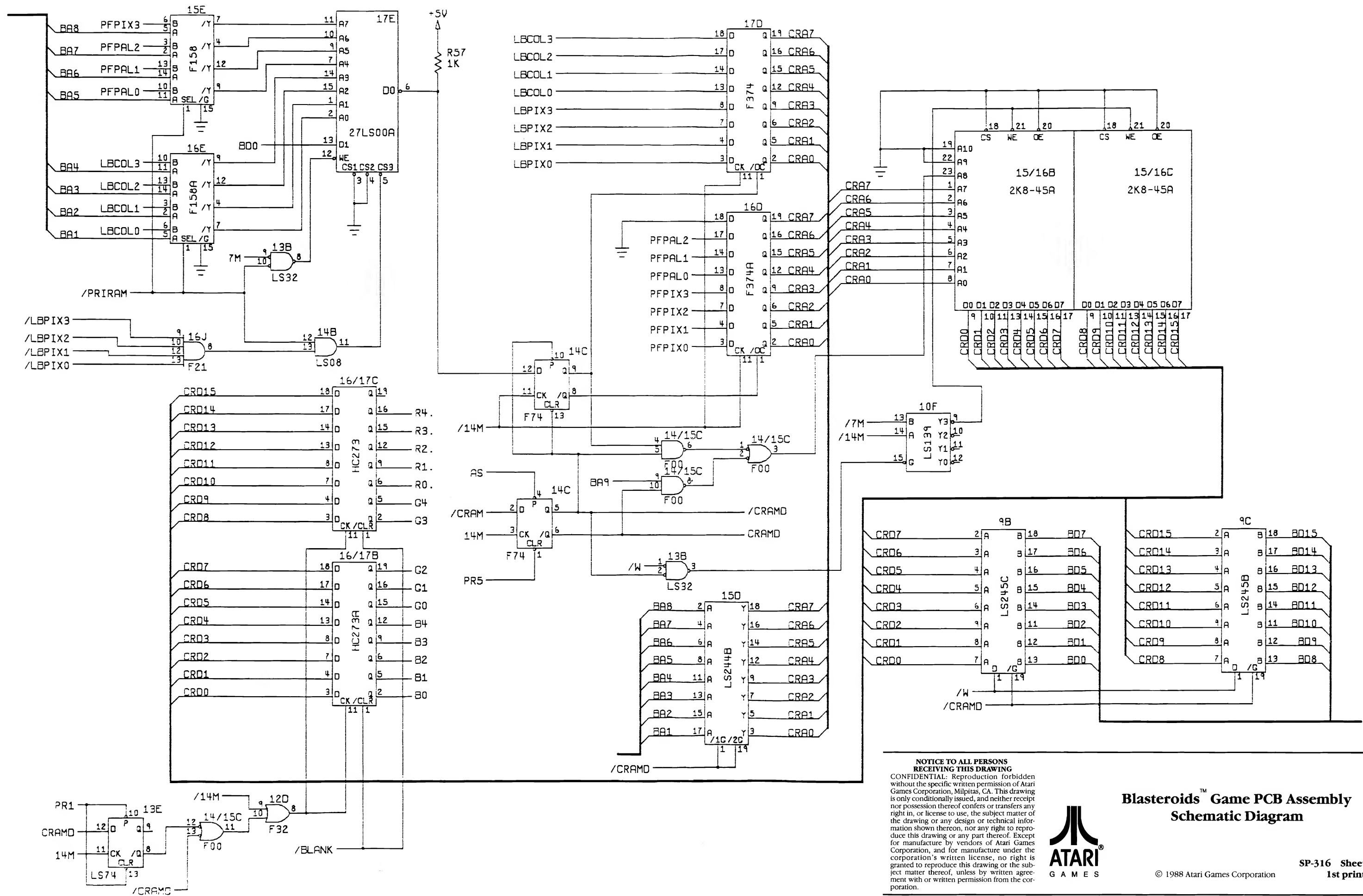


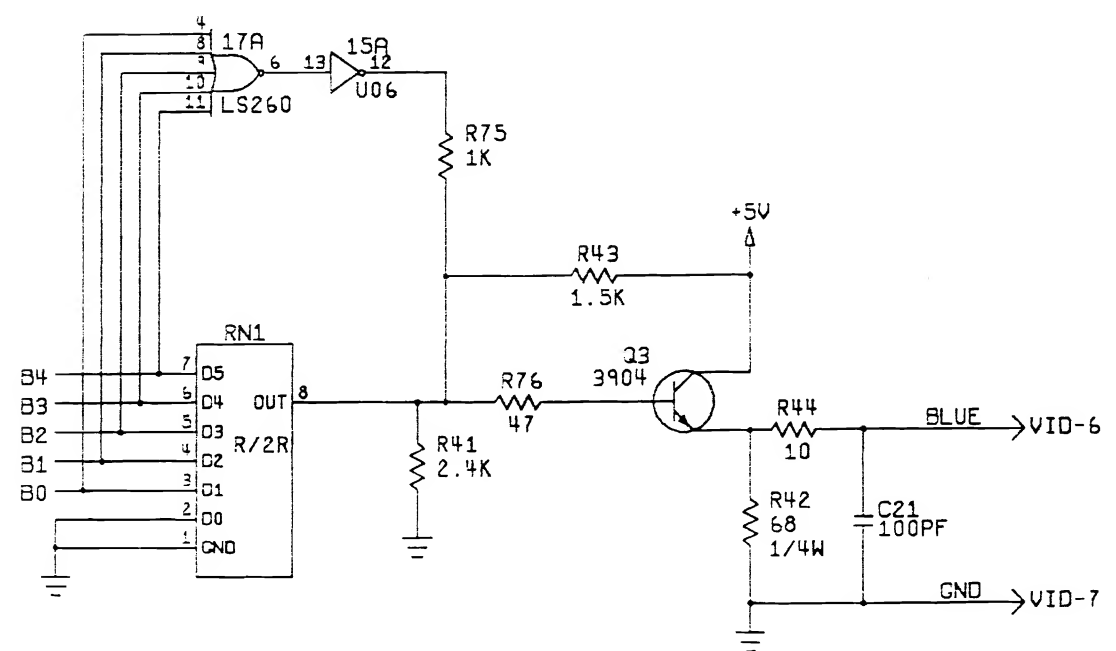
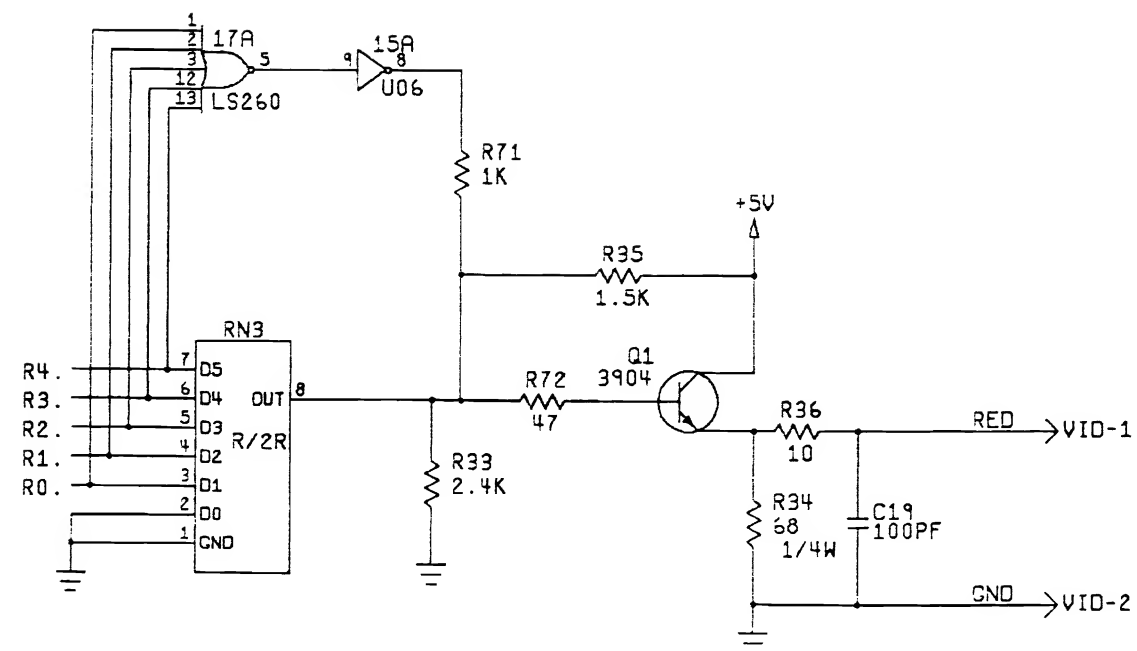
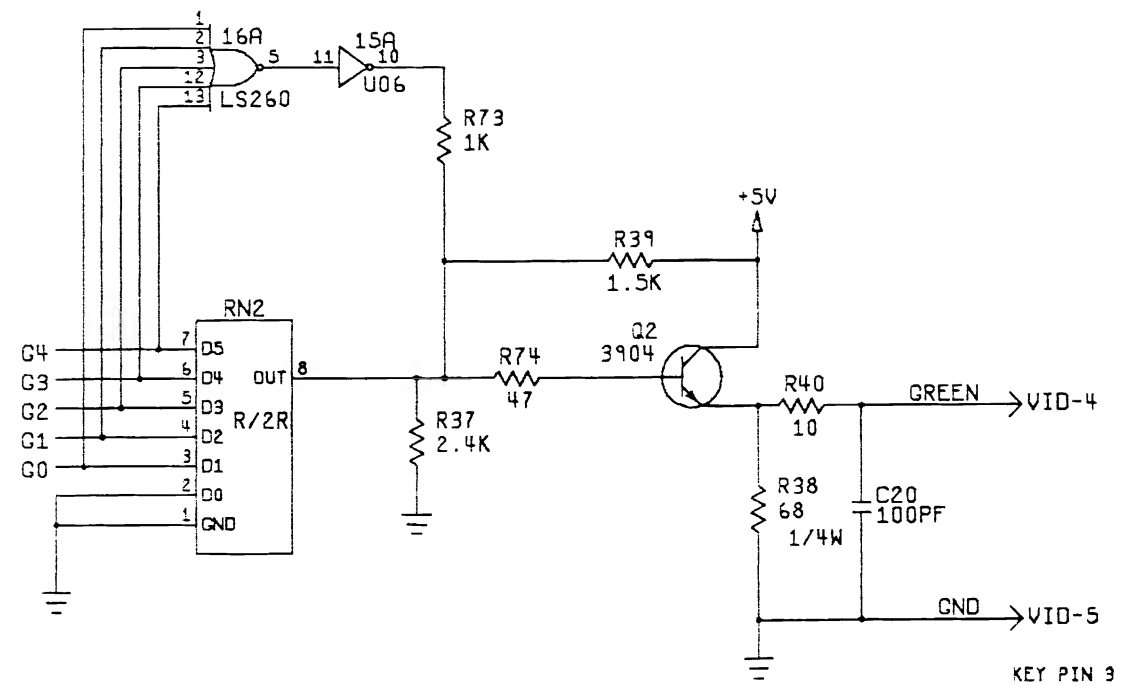
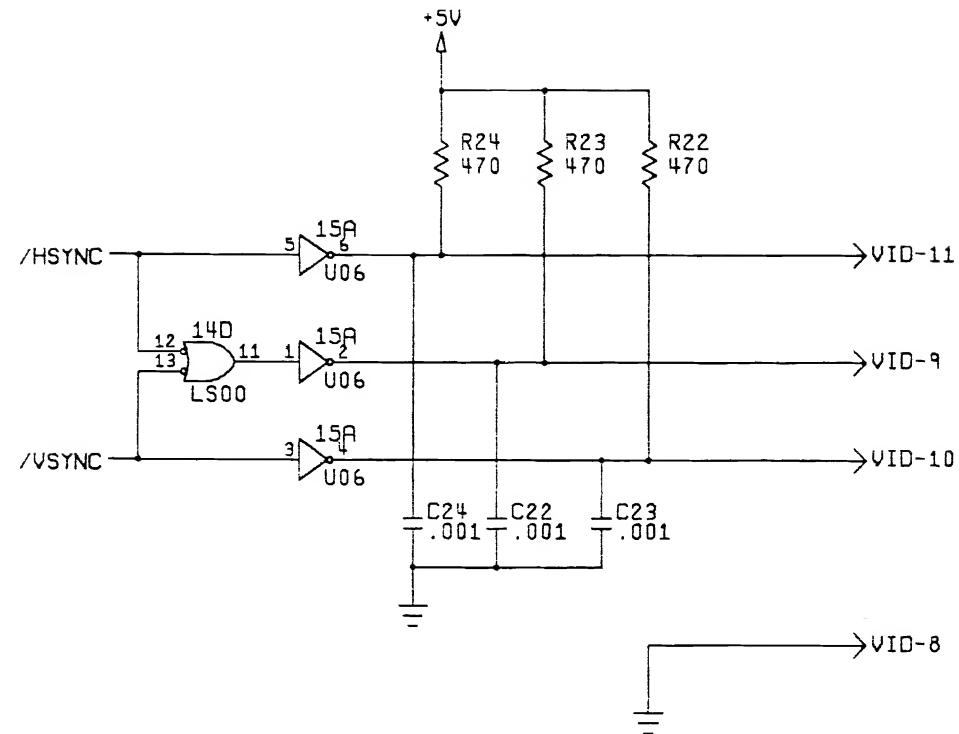
## Blasteroids<sup>TM</sup> Game PCB Assembly Schematic Diagram

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# **Blasteroids™ Game PCB Assembly Schematic Diagram**

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BLASTEROIDS MEMORY MAP

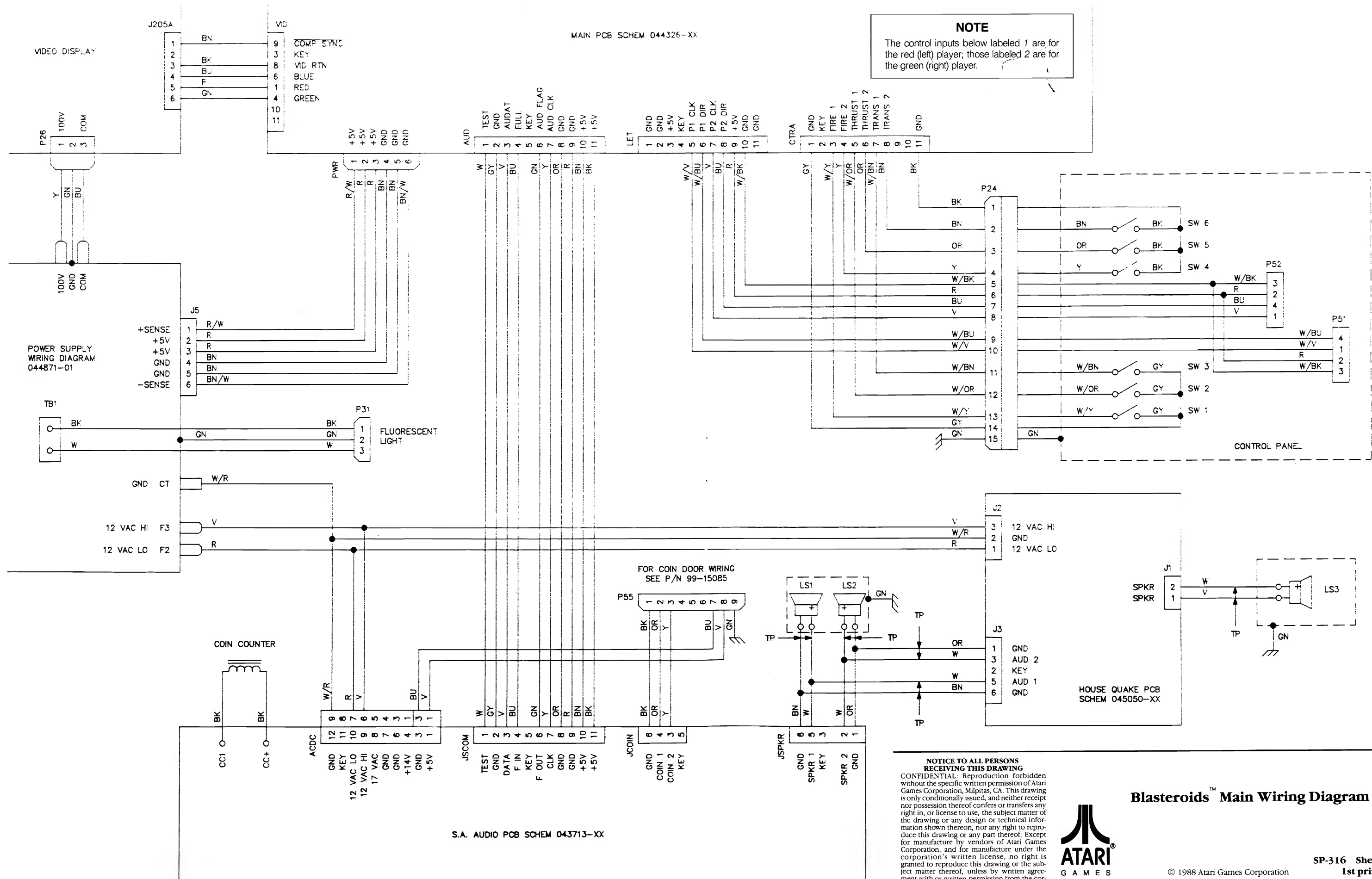
NOTE: The address and data line numbers are stacked vertically to fit over the narrow columns. For example, the leftmost address line is A23, and the rightmost data line is D0.

HEXADECIMAL	ADDRESS						R/ W	DATA				FUNCTION
	AAAA	AAAA	AAAA	AA				DDDD	DD			
	2222	1111	1111	11AA	AAAA	AAAA		1111	11DD	DDDD	DDDD	
	3210	9876	5432	1098	7654	3210		5432	1098	7654	3210	
000000-03FFFF	OXXX	XXAA	AAAA	AAAA	AAAA	AAAA	R	DDDD	DDDD	DDDD	DDDD	256K BYTES PROGRAM ROM
038000-03FFFF	OXXX	XX11	1AAA	AAAA	AAAA	AAAA	R	DDDD	DDDD	DDDD	DDDD	32K BYTES SLAPSTIC PROGRAM ROM SPACE
FF8000	1XXX	XXXX	X000	000X	XXXX	XXXX	W					WATCHDOG RESET
FF8200	1XXX	XXXX	X000	001X	XXXX	XXXX	W					IRQ ACKNOWLEDGE
FF8400	1XXX	XXXX	X000	010X	XXXX	XXXX	W					VBANK INTERRUPT ACKNOWLEDGE
FF8600	1XXX	XXXX	X000	011X	XXXX	XXXX	W					UNLOCK EEROM
FF8800-FF89FE	1XXX	XXXX	X000	100H	PPPM	MMMO	W				D	PRIORITY RAM (D0) (1 = MOTION OBJECT, 0 = PLAYFIELD)
	H = PF HALF PALETTE, P = PF PALETTE, M = M.O. PALETTE											
FF8A01	1XXX	XXXX	X000	101X	XXXX	XXX1	W			DDDD	DDDD	AUDIO SEND PORT
FF8C00	1XXX	XXXX	X000	110X	XXXX	XXXX	W					RESET AUDIO PROCESSOR
FF8E00	1XXX	XXXX	X000	111X	XXXX	XXXX	W					HALT CPU UNTIL HBLANK
FF9401	1XXX	XXXX	X001	01XX	XXXX	XXX1	R			DDDD	DDDD	AUDIO RECEIVE PORT
FF9801	1XXX	XXXX	X001	10XX	XXXX	X0X1	R			DDDD	DDDD	WHIRLY-GIG (PLAYER 1)
FF9805	1XXX	XXXX	X001	10XX	XXXX	X1X1	R			DDDD	DDDD	WHIRLY-GIG (PLAYER 2)
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XXX1	R			D		SELF-TEST SWITCH (D7)
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XXX1	R			D		AUDIO BUSY FLAG (D6) (0 = BUSY)
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XXX1	R			D		VBANK (D5)
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R			D		HBLANK (D4)
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R			DDDD		PLAYER 1 BUTTONS \ (D0 = FIRE; D1 = THRUST;
FF9C03	1XXX	XXXX	X001	11XX	XXXX	XX11	R			DDDD		PLAYER 2 BUTTONS / D2 = TRANSFORM; D3 = SPARE)
FFA000-FFA3FE	1XXX	XXXX	X010	XXAA	AAAA	AAAO	R/W	RRR	RRGG	GGGB	BBBB	COLOR RAM
FFA000-FFA1FE	1XXX	XXXX	X010	XXOP	PPPC	CCCO	R/W	RRR	RRGG	GGGB	BBBB	MOTION OBJECT COLOR RAM
FFA200-FFA2FE	1XXX	XXXX	X010	XX10	PPPC	CCCO	R/W	RRR	RRGG	GGGB	BBBB	PLAYFIELD COLOR RAM
	P = PALETTE C = COLOR											
FFB001-FFB3FF	1XXX	XXXX	X011	aaAA	AAAA	AAAl	R/W			DDDD	DDDD	EEROM (2804: 512 BYTES; 2816: 2K BYTES )
	a = ADDRESS BITS ON 2816 ONLY											
FFC000-FFFFFF	1XXXXX	X1AA	AAAA	AAAA	AAAA	AAAA	R/W	DDDD	DDDD	DDDD	DDDD	16K BYTES VIDEO AND WORKING RAM
FFC000-FFCEFE	1XXX	XXXX	X100	RRRR	RCCC	CCCO	R/W	PPPD	DDDD	DDDD	DDDD	PLAYFIELD RAM (40 x 30 STAMPS)
FFC050-FFCED0	1XXX	XXXX	X100	RRRR	R101	O000	R/W	D				ROW PROGRAMMABLE INTERRUPT (1 = INTERRUPT)
	R = ROW C = COLUMN							P = PALETTE				(Last 47 bytes of each row are free)
FFCF00-FFCFFF	1XXX	XXXX	X100	1111	AAAA	AAAA		DDDD	DDDD	DDDD	DDDD	256 BYTES FREE RAM
FFD000-FFDFF8	1XXX	XXXX	X101	LLLL	LLLL	L000	R/W	VVVV	VVVV	V	ZZZZ	MOVPOS (V = vposition, Z = vsize)
FFD002-FFDFFA	1XXX	XXXX	X101	LLLL	LLLL	L010	R/W	hvSS	SSSS	SSSS	SSSS	MOPIC (h = hflip, v = vflip, S = stamp)
FFD004-FFDFFC	1XXX	XXXX	X101	LLLL	LLLL	L100	R/W		LLLL	LLLL	L	MOLINK (L = next link pointer)
FFD006-FFDFFE	1XXX	XXXX	X101	LLLL	LLLL	L110	R/W	HHHH	HHHH	HH	PPPP	MOHPOS (H = hposition, P = palette)
	L = LINK POINTER											
FFE000-FFFFFF	1XXX	XXXX	X11A	AAAA	AAAA	AAAA	R/W	DDDD	DDDD	DDDD	DDDD	8K BYTES FREE RAM (TOTAL FREE RAM = 9858 BYTES = 4929 WORDS + ANY UNUSED MOTION OBJECT RAM)

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Blasteroids™ Memory Map



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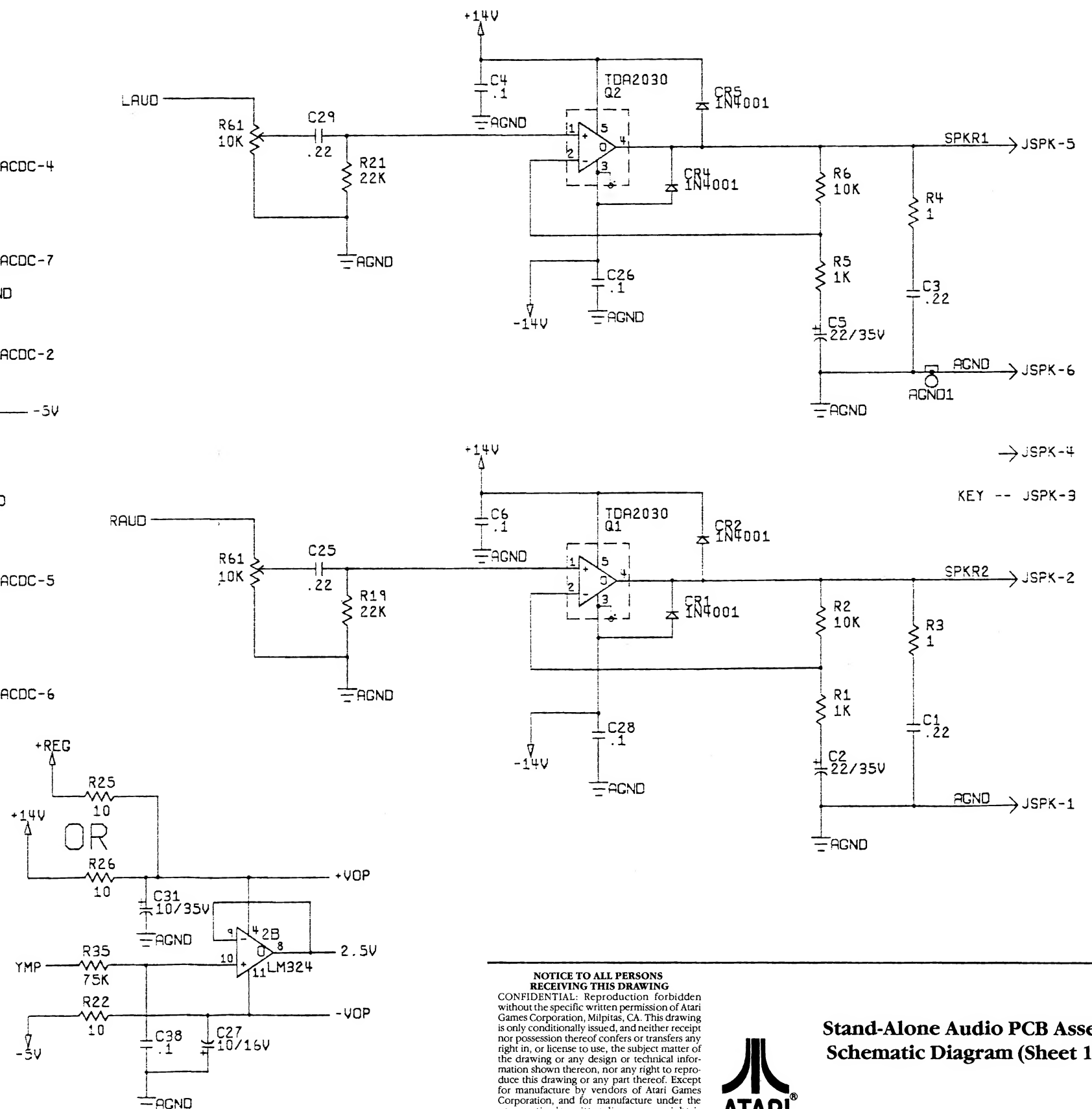


## Blasteroids™ Main Wiring Diagram

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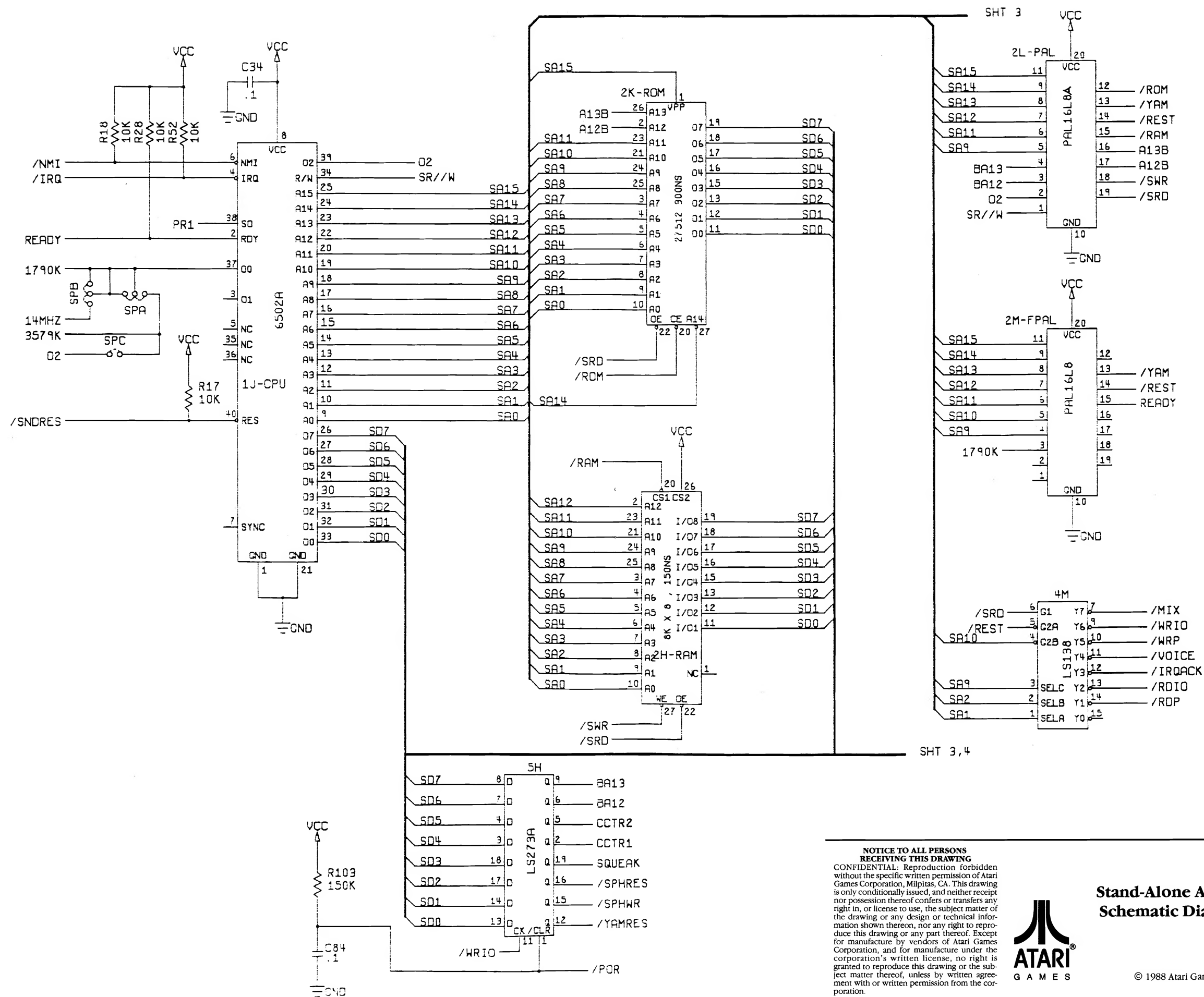
SP-316 Sheet 13  
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The schematic diagram illustrates the power supply section of the TMS320C49 evaluation module. It shows the conversion of ACDC-10 (12VAC-L0) and ACDC-12 (AGND) to various DC rails. Key components include diodes CR8, CR7, CR9, CR10, CR11, CR12, CR13, CR3, CR6; capacitors C20, C18, C8, C21, C19, C9, C22, C11, C10, C24; resistors R24, R20, R8, R7, R9, R29, R50, R14, R10; and integrated circuits Q3 (LM78XX) and Q4 (LM7905). The circuit provides +14V, -14V, -5V, and +REG rails, as well as bypass capacitors for VCC and GND.



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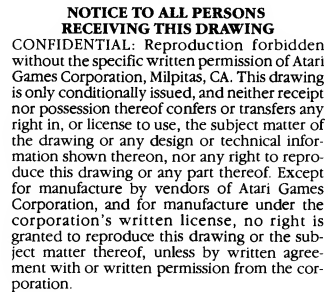
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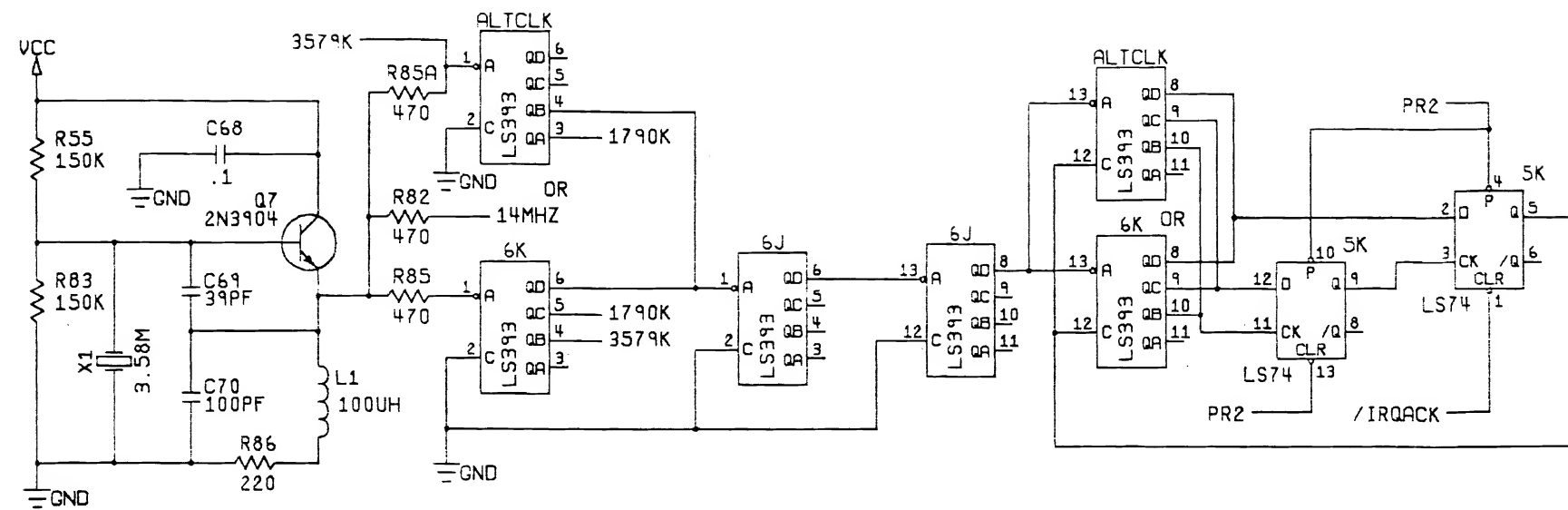
## Stand-Alone Audio PCB Assembly Schematic Diagram (Sheet 2 of 4)

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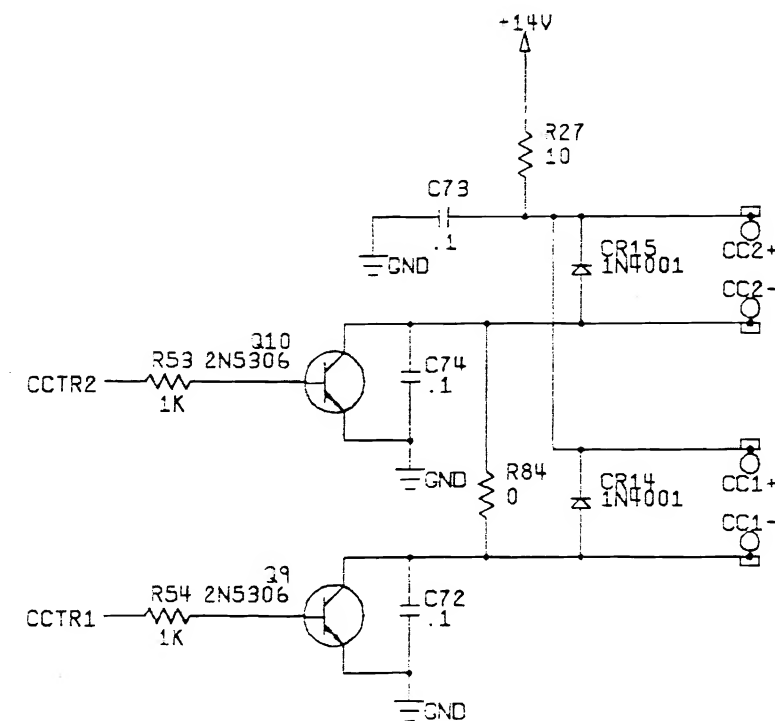
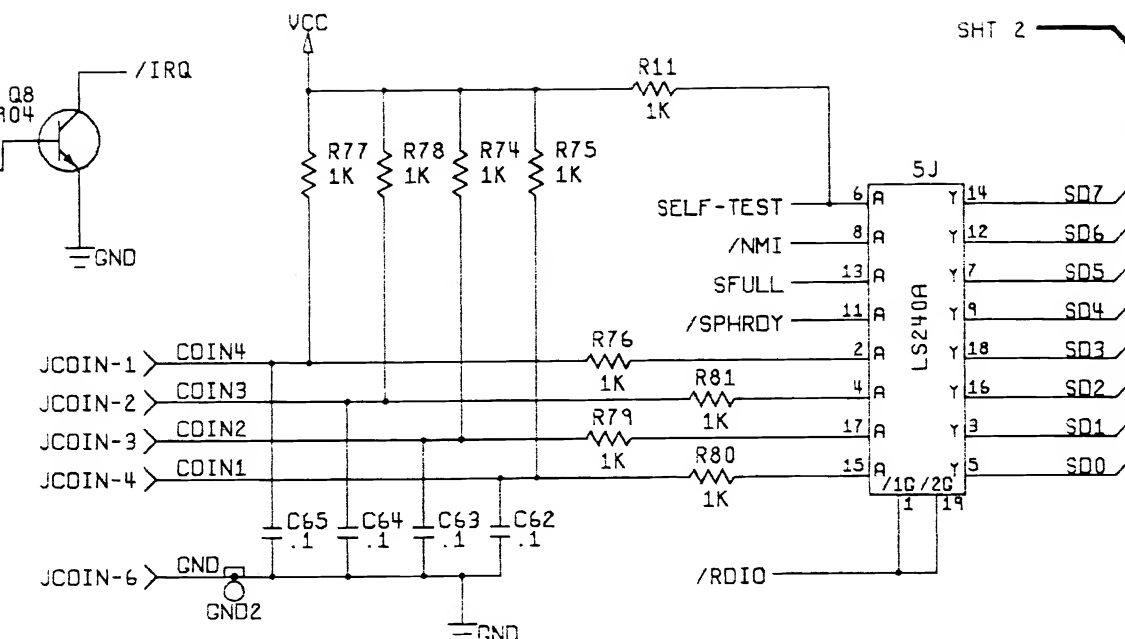
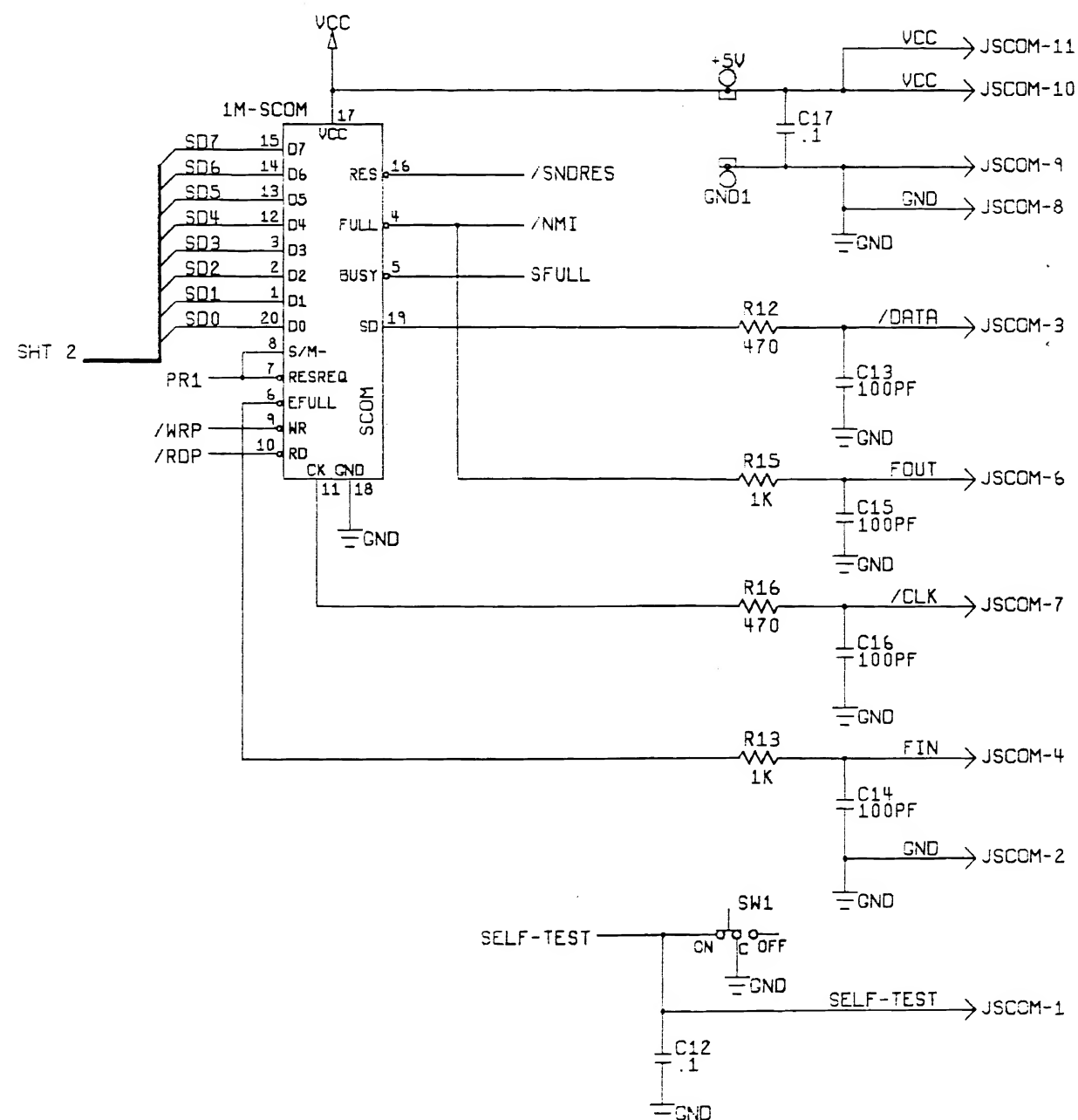
SP-316 Sheet 15  
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**SP-316 Sheet 16**  
**1st printing**



KEY -- JSCOM-5



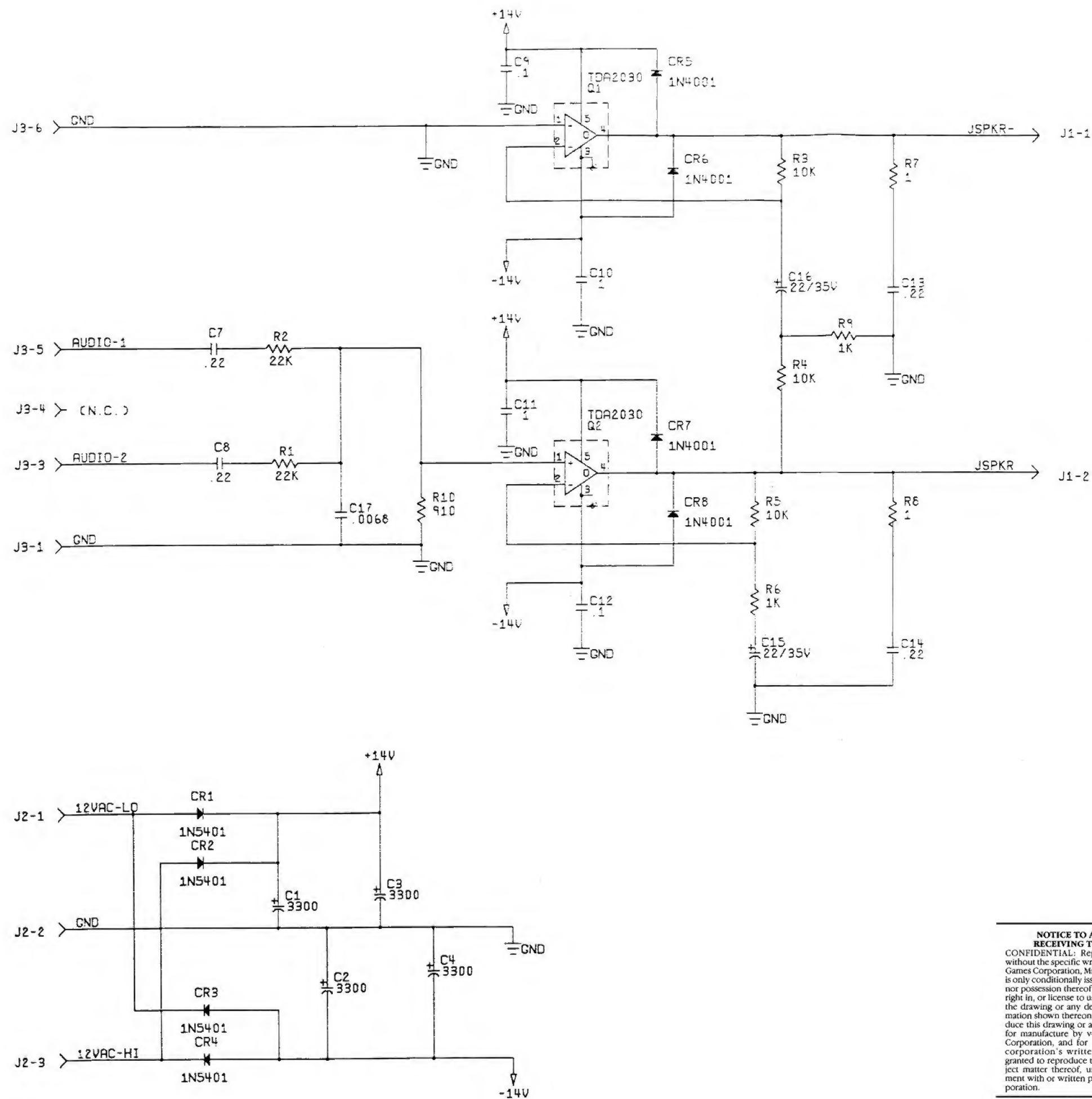
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## Stand-Alone Audio PCB Assembly Schematic Diagram (Sheet 4 of 4)

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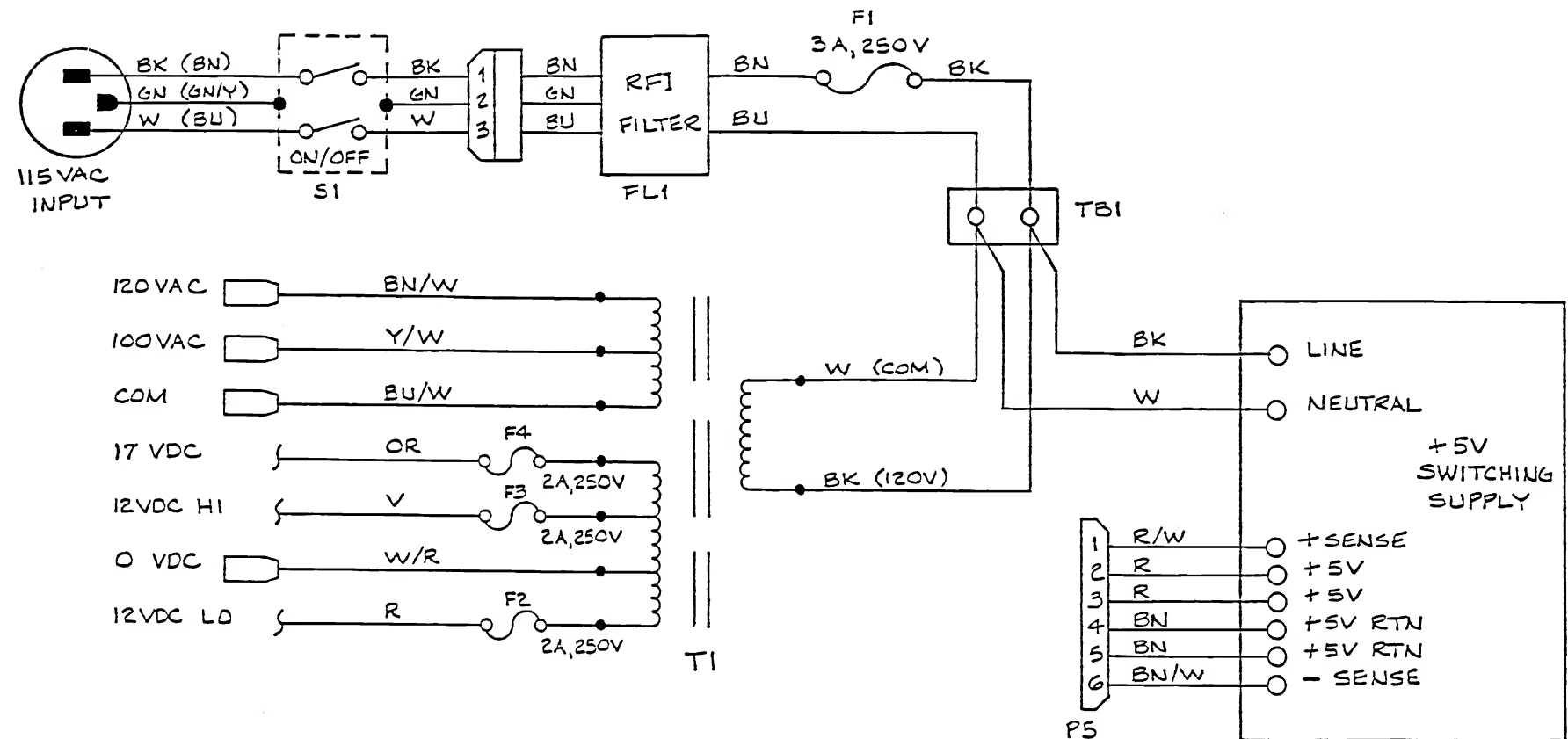
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# Housequake™ PCB Assembly Schematic Diagram

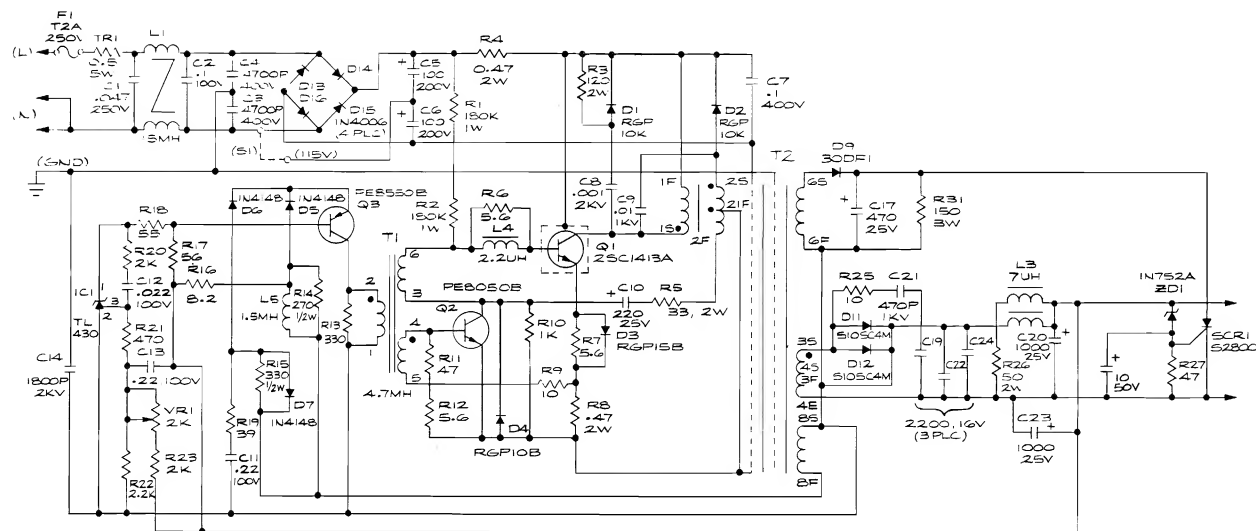
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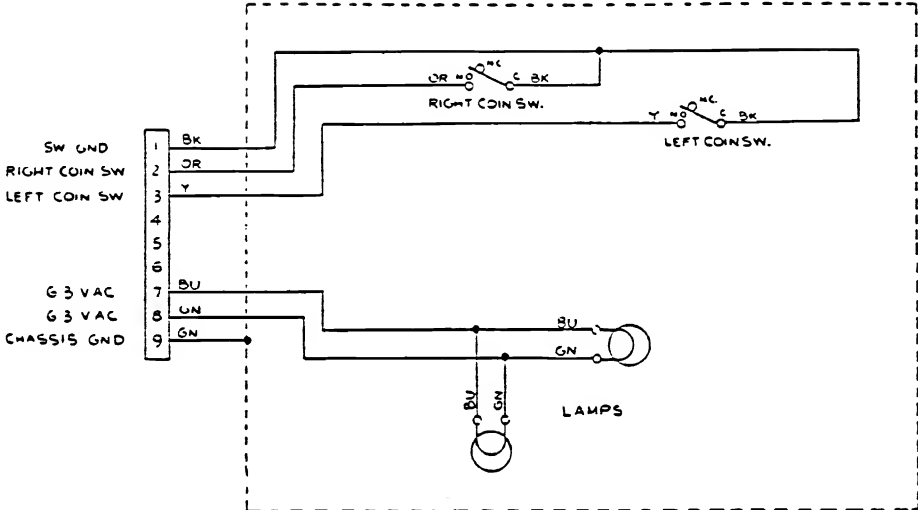
Switching/Linear (SL) Power Supply

Coin Door Wiring Diagram



ATARI PART NO. 149003-003 (120V)  
149003-103 (240V)

Hitron 5V 10A Switching Power Supply



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**Wiring Diagrams for Switching/Linear (SL) Power Supply, Hitron 5V 10A Switching Power Supply, and Coin Door**

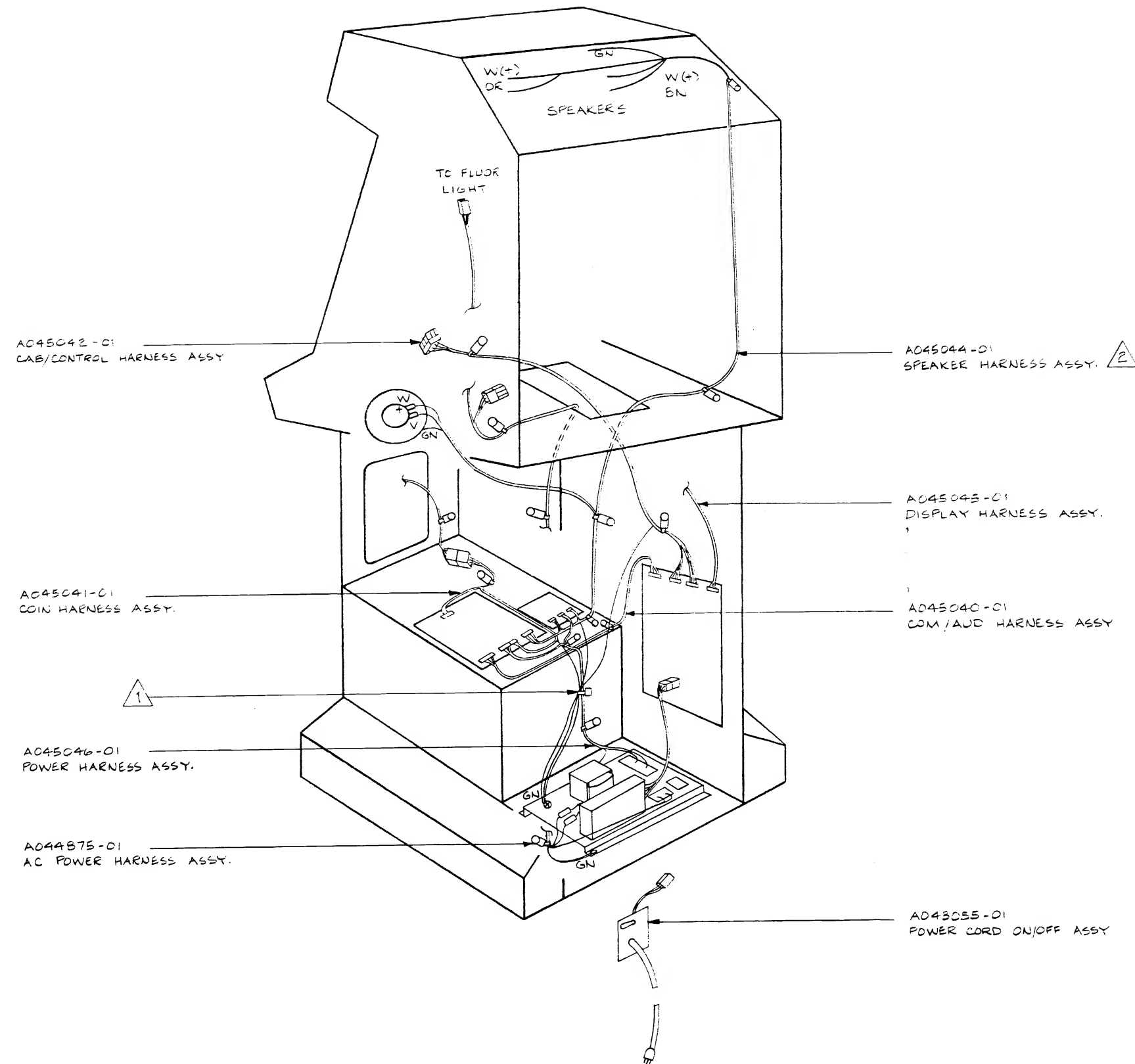


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# NOTE

If you replace any of the harnesses in this game, be sure to install them as shown in this illustration. Installing them in a different way may cause this game to generate excessive electromagnetic interference.



## NOTES

- 1 SECURE GROUND WIRES TO POWER HARNESS ASSY. WHERE SHOWN.
- 2 STAPLE GROUND WIRE TO LEFT REAR CORNER OF TOP SPEAKER PANEL AND BOTTOM LEFT CORNER OF LOWER SPEAKER PANEL.

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## Blasteroids Harness Installation

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